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54 **Light sensing devices with lenticular pixels.**

57 A multipixel light sensing semiconductor device contains in at least one pixel a lens presenting a convex surface and a lens supporting layer for directing light inwardly to a semiconductive light sensor. The lens supporting layer has a thickness exceeding that of the lens, and the lens is laterally confined on the lens supporting layer between at least two opposed pixel edges.

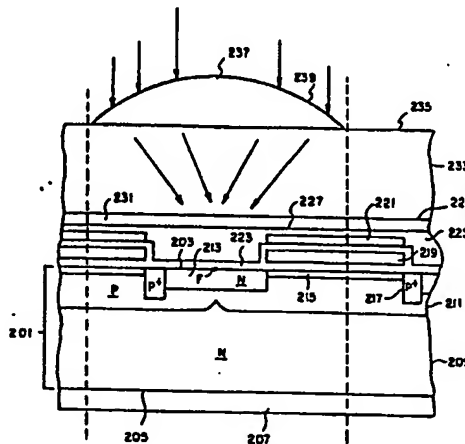


FIG. 7



European Patent
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EUROPEAN SEARCH REPORT

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EP 87 10 4927

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
P,X	US-A-4 667 092 (NEC CORP.) * column 4, table I; column 5, line 1 - column 6, line 19; figures 5-7e *; & JP - A - 60 38989 (Cat. X); & JP - A - 59 122193 (Cat. X) ---	1-4,8-10	H 01 L 31/02
A	PATENT ABSTRACTS OF JAPAN vol. 8, no. 206 (E-267)(1643) 20 September 1984; & JP- A - 59 90466 (MITSUBISHI DENKI K.K.) 24.05.1984 ---	3,4	
X	PATENT ABSTRACTS OF JAPAN vol. 9, no. 193 (E-334)(1916) 9 August 1985; & JP - A - 60 60756 (HITACHI SEISAKUSHO K.K.) 08.04.1985 ---	1,9,10	
Y	idem ---	8	
D,Y	PATENT ABSTRACTS OF JAPAN vol. 8, no. 281 (E-286)(1718) 21 December 1984; & JP - A - 59 148482 (HITACHI SEISAKUSHO K.K.) 25.08.1984 ---	8	
D,A	IEEE TRANSACTIONS ON CONSUMER ELECTRONICS vol. CE-31, no. 2, May 1985, pages 88-95; H. SAEKI et al.: "Effect of microlens array for MOS color imager" * section II; figures 1,2 * ---	1	TECHNICAL FIELDS SEARCHED (Int. Cl.4) H 01 L 31/00 H 01 L 27/00
A	PATENT ABSTRACTS OF JAPAN vol. 10, no. 228 (E-426)(2284) 8 August 1986; & JP - A - 61 64158 (NEC CORP.) 02.04.1986 -----	6	
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 28-08-1989	Examiner MUNNIX S J G
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document			